



GOVERNMENT OF THE PUNJAB
TECHNICAL EDUCATION & VOCATIONAL TRAINING
AUTHORITY
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No.TEVTA/MIS/

July 19, 2017

NOTIFICATION

No.TEVTA/MIS/1-198 Technical Specifications for procurement of following IT Equipment are hereby notified for the period July, 2017 to December, 2017.

1. Entry Level Server
2. Work Station / Desktop Computer
3. Laptop
4. Printers
5. Multimedia Projector
6. Scanners
7. Network Equipment

The Purchase procedure will be followed as per Punjab Procurement Regulatory Authority (PPRA) Rules 2014.

(NAEEM ASLAM)
Chief Technology Officer

A copy is forwarded for information to:

- a) All General Managers and Deputy General Managers (TEVTA)
- b) All Zonal Managers and District Managers (TEVTA)
- c) Manager (Procurement), Manager (Admn.) TEVTA Secretariat
- d) All Committee Members
- e) Manager (MIS) TEVTA Secretariat to place on Website and Circulate through email
- f) SA to the Chairperson, PS to the COO, PA to Advisor Projects
- g) PA to General Manager Academics
- h) Master File

Specification of I.T Equipment

ENTRY LEVEL SERVER	
ITEM	DESCRIPTION
Processor	Intel Xeon processor (3.5 GHz, 8MB Cache) Equivalent / higher
Mother Board	Intel Chipset with min 2 Memory (RAM) slot or higher
ECC Memory (RAM)	Min 16 GB (2x8GB) ECC or higher
Hard Disk Drive	Min 2x 1TB SATA or higher
RAID Controller	Integrated SATA RAID (Levels 0/1/10) and Option to Upgrade to RAID 5 via Software Key.
I/O Ports & Expansion Slots	Min 2 PCI/ PCIe Slots and 4 USB 2.0/3.0 slots or higher
Optical Drive	DVD Writer (Super Drive)
Display Card	As per manufacturer standards or integrated
Network Adapter	Minimum 2x integrated Gigabit Ethernet (10/100/1000) or higher
Mouse & Key Board	USB Standard Keyboard and V-Track Optical Mouse with Scroll.
Chassis	Tower / mini Tower Casing
Power Supply	Single Power Supply or manufacturer's standard
Display LED	18.5" LED Display, 1024 x 768 Resolution supportive or higher
Optional (Need Based)	
Operating System (Educational Licensed)	Microsoft Windows 2016 Server Std. Edition with minimum 10 CALS or latest
Wire Less LAN Card	300Mbps or higher
ECC Memory	Min 8 GB ECC (Single Module)



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WORK STATION / DESKTOP COMPUTER	
ITEM	DESCRIPTION
Processor	Intel 7 th Generation Core i5 processor (3.2GHz, 6 MB Cache) or higher
Mother Board	Intel chipset Motherboard with min 2 Memory (RAM) slot or higher
Memory (RAM)	Min 4 GB- DDR-IV 2400 MHz or higher (single module)
Hard Disk Drive	Min 500GB SATA with 7200 RPM or higher.
Display /Sound Card	Integrated display and audio card.
Network Adapter	Integrated Gigabit Ethernet (10/100/1000 Mbps)
Display	18.5" LED or above, Low Radiation, 1024 x 768 Resolution supportive or better
Mouse & Keyboard	USB Standard Keyboards and Optical Mouse with Scroll.
Casing	Tower / mini Tower Casing
I/O Interfaces and Expansion Slots	Min 4 USB 2.0/3.0 ports and Two PCI/ PCI Express slots
Optional (Need Based)	
Optical Drive Internal	DVD-RW (Super Drive) or higher
Operating System (Educational Licensed)	Microsoft Windows 10 Professional or Latest Version
Wireless LAN Card	300Mbps or higher (if Wireless Networking required)
Graphics Card	As per curriculum requirement



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LAPTOP	
ITEM	DESCRIPTION
Processor	Intel 7 th Generation Core i7 Processor 2.7 GHz or higher
Memory	8 GB- DDR-IV or higher (Single Module)
Hard Disk Drive	1TB (5400RPM) or higher.
Super Internal Drive	DVD-RW (Super Drive) or higher
Display Sound Card/ Card/	Built-in Video Graphics display and sound card.
Connectivity	Integrated Gigabit Ethernet (10/100/1000 Mbps), Built-in WIFI and Bluetooth
Display	15" LED or higher
Mouse & Key	Touchpad Mouse and Standard Keyboard
Camera & Speaker	Built-in web cam with Mic, Integrated Speaker
Accessories	Original Carry-Pack/ Executive Bag (Branded) & Original Power Adapter
Optional (Need Based)	
Operating System	Microsoft Windows 10 Professional or Latest Version (Licensed)



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PRINTERS	
ITEMS	DESCRIPTION
LaserJet Medium Duty	<p>Minimum Print Speed: 30 PPM A4 size, Resolution 1200X1200 Dpi (1200 Image Quality) or better. Processor: 512 MHz RISC or higher Memory: 128 MB RAM or higher. Paper Handling: Legal, A4 & letter size paper. Duplex Printing: Automatic Two-sided printing (Duplexer Card). Paper Tray(s): Two Paper Trays minimum. Low Ink indicator. Print cancel job etc LCD/LED Display of the Print Status, With other Standard Features of the Manufacturer. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p>
LaserJet Light Duty	<p>Minimum Print Speed: 18 PPM, Memory: 8MB RAM or higher, Processor: 256 MHz or higher Resolution: 600 by 600 dpi or better /1200 Image quality. Paper Handling: Legal, A4 & letter size paper. Paper Tray(s): One paper tray minimum. Other standard features like print cancel job etc. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p>
Color LaserJet Light Duty	<p>Print Speed: 8 PPM (A4 size color on normal quality mode) or higher. Memory: 16MB RAM or higher. Processor: 256 MHz or higher Resolution: 600x600 dpi or better. Paper Handling: Legal, A4 and letter size paper. Paper Tray(s): one paper tray minimum + one manual paper feeding. Other standard features like low Ink indicator, print cancel button etc. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p>
Dot Metrix	<p>Printing Method: impact dot matrix Print Speed: Draft mode 225cps (10cpi) or higher. Input Buffer: 8KB or higher. Number of Pins: 24Pins Formatting: Line spacing 1/6" or better Paper Handling: Cut Sheets, width 3.9" to 10.1", Length 3.9" to 14.3". Continuous paper width 4' to 10", Length 22". Paper Feed Method: Friction, Push tractor, Push & pull tractor and Pull tractor feed. Interface: Bidirectional 8-bit parallel and Serial Interface Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)</p>



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MULTIMEDIA PROJECTOR	
ITEMS	DESCRIPTION
Brightness	3,000 Lumens (Lamp mode High) or better
Contrast Ratio	500:1/ 700:1 / 2,000:1
Native Resolution	XGA (1024x768) or better
Aspect Ratio	4:3 or better
Acceptable Video Signals	720p, 1080i, 76i, 576p
Lamp Life (hours)	3000 hour or higher
Zoom Lens	1.30:1
Projection/ Display Size:	25" to 300"
Optical Lens Shift	Horizontal & Vertical
Ceiling Mountable & Remote Control	Yes
Ports	S-Video, DVI, HDMI, PC Audio in/out
USB Port	PC-free slideshows feature with remote control (to run presentation without Computer)



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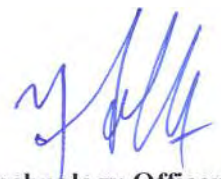
SCANNERS

ITEMS	DESCRIPTION
Light Duty Scanner for A4/ Letter size paper	Flatbed. Scanning Resolution: 600 by 600 or higher. Document Size: A4/Letter. Scanning modes: B/W & Color. Standard features along-with USB cable. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)
Light Duty Scanner for Legal size paper	Document feeding and Flatbed. Scanning Speed: 8ppm or higher Scanning Resolution: 600 by 600 or higher. Document Size: Letter, Legal. Scanning modes: B/W & Color. Standard features along-with USB cable. Drivers: Microsoft windows XP/Vista/2003/07/10/server 8/12 and Red Hat Linux supportive. (with USB 2.0 cable)



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NETWORK EQUIPMENT	
ITEMS	DESCRIPTION
ACTIVE	
Non- Manageable Switch	Non-Manageable Layer 2 Full Duplex, 10/100/1000 BaseT, TX Fast Ethernet 24 Ports
Non- Manageable Switch	Non-Manageable, 10/100/1000 BaseT, TX Fast Ethernet 08 Ports
Wireless Access Point / Router (If Wireless Networking Required)	300Mbps with minimum 4 Ethernet Ports (10/100 Mbps) or higher
PASSIVE EQUIPMENT	
ITEMS	DESCRIPTION
UTP Cable CAT 6E (Pure Copper)	UTP cable, 4 pair, Fast Ethernet supported, Roll/Box = 1000 ft minimum
Face Plates	Face Plates with dual shutter, dual fast Ethernet supported UTP I/O
Back Box	Standard Back Box
Patch Panel	UTP 24-Port Patch Panel with rear cable management
Patch Cord	UTP Patch Cord, fast Ethernet supported 1 meters, 3 meters, 9 meters or (length as per requirement)
Data Cabinet	Data Cabinet 4 U, perforated top, Floor standing, min 2 exhaust fans and power panel, glass door and Lock
Ducts	Duct 16 x 38 (10 Ft Per Length) ISO certified Brand
Ducts	Duct 40 x 40 (10 Ft Per Length) ISO certified Brand
PVC pipe	PVC Flexible 1 (10 ft Length)
	UTP Cable Laying & Termination job (Per Running Foot)



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